



Bureau of Air Quality Conditional Major Operating Permit

**Solvay USA, Inc.
399 Sims Chapel Road
Spartanburg, South Carolina 29304
Spartanburg County**

In accordance with the provisions of the Pollution Control Act, Sections 48-1-50(5), 48-1-100(A), and 48-1-110(a), the 1976 Code of Laws of South Carolina, as amended, and South Carolina Regulation 61-62, Air Pollution Control Regulations and Standards, the Bureau of Air Quality authorizes the operation of this facility and the equipment specified herein in accordance with valid construction permits, and the plans, specifications, and other information submitted in the operating permit request received on June 30, 2017, as amended. All official correspondence, plans, permit applications and written statements are an integral part of the permit. Any false information or misrepresentation in the application for a construction or operating permit may be grounds for permit revocation.

The operation of this facility is subject to and conditioned upon the terms, limitations, standards, and schedules contained herein or as specified by this permit and its accompanying attachments.

Permit Number: CM-2060-0135

Issue Date: DRAFT

Effective Date: DRAFT

**Steve McCaslin, P. E., Director
Air Permitting Division
Bureau of Air Quality**

RECORD OF REVISIONS	
Date	Description of Changes

DRAFT

A. EMISSION UNIT DESCRIPTION

Emission Unit ID	Emission Unit Description
01	Boiler No.1
02	Boiler No.2
03	Phosphate Ester/Ether Sulfate/Specialty Blend Processes
04	Ethoxylation/Propxylation/Block Polymer/Specialty Blend Processes
05	VOID - 12,000 gallon SDA 3A 190 Proof Ethanol Storage Tank (Moved to Exempt Sources)
06	VOID - Research and Development (R&D) Semi-Works Facility (SWF) (Reactors 15R, R75, R150, R300) (Moved to Exempt Sources)
07	VOID - 12,000 gallon No.2 Fuel Oil Storage Tank (Moved to Exempt Sources)
08	Boiler No.3
09	VOID -Storage Tanks (Moved to Exempt Sources)

B. EQUIPMENT AND CONTROL DEVICE(S)**B.1 EQUIPMENT FOR EMISSION UNIT 01 – BOILER NO.1**

Equipment ID	Equipment Description	Installation/Modification Date	Control Device ID	Emission Point ID
B-1	Boiler No.1 (Natural Gas only as fuel)	1984/2002	None	B-1

B.2 EQUIPMENT FOR EMISSION UNIT 02 – BOILER NO.2

Equipment ID	Equipment Description	Installation/Modification Date	Control Device ID	Emission Point ID
B-2	Boiler No.2 (Natural Gas only as fuel)	1984/2002	None	B-2

B.3 EQUIPMENT FOR EMISSION UNIT 03 – PHOSPHATE ESTER/ETHER SULFATE/SPECIALTY BLEND PROCESSES

Equipment ID	Equipment Description	Installation/Modification Date	Control Device ID	Emission Point ID
R-9	6,000 gallon Reactor R-9	2013	AFBURSCR	AFBURSCR

B.3 EQUIPMENT FOR EMISSION UNIT 03 - PHOSPHATE ESTER/ETHER SULFATE/SPECIALTY BLEND PROCESSES

Equipment ID	Equipment Description	Installation/Modification Date	Control Device ID	Emission Point ID
R-10	4,000 gallon Reactor R-10	1991	AFBURSCR	AFBURSCR
R-11	10,000 Production Reactor R-11	2015	AFBURSCR	AFBURSCR
R-12	10,000 gallon Production Reactor R-12	1991	AFBURSCR	AFBURSCR
R-13	11,000 gallon Pre/Post-Treat Vessel	1991	AFBURSCR	AFBURSCR

B.4 CONTROL DEVICE(S) FOR EMISSION UNIT 03 - PHOSPHATE ESTER/ETHER SULFATE/SPECIALTY BLEND PROCESSES

Control Device ID	Control Device Description	Installation/Modification Date	Pollutant(s) Controlled
AFBURSCR	Afterburner with attached Packed Tower/Scrubber	1991	VOC, HAP

B.5 EQUIPMENT FOR EMISSION UNIT 04 - ETHOXYLATION/PROPYLATION/BLOCK POLYMER/SPECIALTY BLEND PROCESSES

Equipment ID	Equipment Description	Installation/Modification Date	Control Device ID	Emission Point ID
R-4	6,000 gallon Production Reactor R-4	1989	OXIDESCR	OXIDESCR
R-5	6,000 gallon Production Reactor R-5	1991	OXIDESCR	OXIDESCR
R-7	1,500 gallon Production Reactor R-7	1995	OXIDESCR	OXIDESCR
R-6	6,000 gallon Pre/Post-Treat Vessel	1995	OXIDESCR	OXIDESCR

B.6 CONTROL DEVICE(S) FOR EMISSION UNIT 04 - ETHOXYLATION/PROPYLATION/BLOCK POLYMER/SPECIALTY BLEND PROCESSES

Control Device ID	Control Device Description	Installation/Modification Date	Pollutant(s) Controlled
OXIDESCR	Oxide Scrubber	1989	VOC, HAP

B.7 EQUIPMENT FOR EMISSION UNIT 08 – BOILER NO.3

Equipment ID	Equipment Description	Installation/Modification Date	Control Device ID	Emission Point ID
B-3	Boiler No.3 (Natural Gas and No.2 Fuel Oil ($\leq 0.3\%$ Sulfur) as fuels)	1984/2002	None	

C. LIMITATIONS, MONITORING AND REPORTING CONDITIONS

Condition Number	Conditions
C.1	<p>Emission Unit ID: All Equipment ID: All Control Device ID: All</p> <p>(S.C. Regulation 61-62.1, Section II.J.1.g) A copy of the Department issued construction and/or operating permit must be kept readily available at the facility at all times. The owner or operator shall maintain such operational records; make reports; install, use, and maintain monitoring equipment or methods; sample and analyze emissions or discharges in accordance with prescribed methods at locations, intervals, and procedures as the Department shall prescribe; and provide such other information as the Department reasonably may require. All records required to demonstrate compliance with the limits established under this permit shall be maintained on site for a period of at least 5 years from the date the record was generated and shall be made available to a Department representative upon request.</p>
C.2	<p>Emission Unit ID: 03, 04 Equipment ID: R-9, R-10, R-11, R-12, R-13, R-4, R-5, R-7, R-6 Control Device ID: AFBURSC, OXIDESCR</p> <p>The owner/operator shall inspect, calibrate, adjust, and maintain continuous monitoring systems, monitoring devices, and gauges in accordance with manufacturer's specifications or good engineering practices. The owner/operator shall maintain on file all measurements including continuous monitoring system or monitoring device performance measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required in a permanent form suitable for inspection by Department personnel.</p>

C. LIMITATIONS, MONITORING AND REPORTING CONDITIONS

Condition Number	Conditions
C.3	<p>Emission Unit ID: 03, 04 Equipment ID: R-9, R-10, R-11, R-12, R-13, R-4, R-5, R-7, R-6 Control Device ID: AFBURSCR, OXIDESCR</p> <p>All gauges shall be readily accessible and easily read by operating personnel and Department personnel (i.e. on ground level or easily accessible roof level). Monitoring parameter readings (i.e., pressure drop readings, etc.) and inspection checks shall be maintained in logs (written or electronic), along with any corrective action taken when deviations occur. Each incidence of operation outside the operational ranges, including date and time, cause, and corrective action taken, shall be recorded and kept on site. Exceedance of operational range shall not be considered a violation of an emission limit of this permit, unless the exceedance is also accompanied by other information demonstrating that a violation of an emission limit has taken place. Reports of these incidences shall be submitted annually. If no incidences occurred during the reporting period, then a letter shall indicate such.</p> <p>Any alternative method for monitoring control device performance must be preapproved by the Department and shall be incorporated into the permit as set forth in S.C. Regulation 61-62.1 Section II.</p>

C. LIMITATIONS, MONITORING AND REPORTING CONDITIONS

Condition Number	Conditions
C.4	<p>Emission Unit ID: 01, 02, 08 Equipment ID: B-1, B-2, B-3 Control Device ID: None</p> <p>(S.C. Regulation 61-62.5, Standard No. 5.2) Any existing source where a burner assembly is replaced with another burner assembly after June 25, 2004, regardless of size or age of the burner assembly to be replaced shall be replaced with a low NO_x burner assembly or equivalent technology, and shall achieve a 30 percent reduction from uncontrolled NO_x emission levels based upon manufacturer's specifications. An exemption from this requirement shall be granted when a single burner assembly is being replaced in an existing source with multiple burners due to non-routine maintenance. The replacement of individual components such as burner heads, nozzles, or windboxes does not trigger this requirement.</p> <p>The owner or operator shall notify and register the burner assembly replacement with the Department, in writing, within 7 days of replacing the existing burner assembly. Notification will be provided on the Department's Low NO_x Burner Assembly Replacement Notification Form D-2935. Those affected sources that wish to receive an emission reduction credit for the control device will be required to submit a construction permit application. Those affected sources requesting an alternative control methodology must receive written approval prior to burner replacement.</p> <p>If the burner assembly is replaced as detailed above, the owner or operator shall perform tune-ups every twenty-four (24) months in accordance with manufacturer's specifications or with good engineering practices. The first tune-up shall be conducted no more than twenty-four (24) months from replacement of a burner assembly for affected existing sources. Each subsequent tune-up shall be conducted no more than twenty-four (24) months after the previous tune-up.</p> <p>All tune-up records are required to be maintained on site and available for inspection by the Department for a period of five (5) years from the date generated.</p> <p>The owner or operator shall develop and retain a tune-up plan on file.</p>
C.5	<p>Emission Unit ID: 03, 04 Equipment ID: R-9, R-10, R-11, R-12, R-13, R-4, R-5, R-7, R-6 Control Device ID: AFBURSCR, OXIDESCR</p> <p>(S.C. Regulation 61-62.5, Standard No.4, Section IX) Where construction or modification began after December 31, 1985, emissions from these sources (including fugitive emissions) shall not exhibit an opacity greater than 20%, each.</p>

C. LIMITATIONS, MONITORING AND REPORTING CONDITIONS

Condition Number	Conditions
C.6	<p>Emission Unit ID: 01, 02, 08 Equipment ID: B-1, B-2, B-3 Control Device ID: None</p> <p>(S.C. Regulation 61-62.5, Standard No.1, Section I) These fuel burning source(s) shall not discharge into the ambient air smoke which exceeds an opacity of 20%. The owner/operator shall, to the extent practicable, maintain and operate any source including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions.</p> <p>Owners and operators shall, to the extent practicable, maintain and operate any source including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. In addition, the owner or operator shall maintain a log of the time, magnitude, duration, and any other pertinent information to determine periods of startup and shutdown and make available to the Department upon request.</p> <p>(S.C. Regulation 61-62.5, Standard No.1, Section II) The maximum allowable discharge of particulate matter resulting from these sources is 0.6 pounds per million Btu input each.</p> <p>(S.C. Regulation 61-62.5, Standard No.1, Section III) The maximum allowable discharge of sulfur dioxide (SO₂) resulting from these sources is 2.3 pounds per million Btu input each.</p> <p>Unit 08 (B-3) is permitted to burn only Natural Gas and No.2 Fuel Oil (Sulfur content \leq 0.3%) as fuel. The use of any other substances as fuel is prohibited without prior written approval from the Department. Unit 01 (B-1) and Unit 02 (B-2) are permitted to burn only Natural Gas.</p>

C. LIMITATIONS, MONITORING AND REPORTING CONDITIONS

Condition Number	Conditions
C.7	<p>Emission Unit ID: 03 Equipment ID: All Control Device ID: AFBURSCR (Afterburner)</p> <p>(S.C. Regulation 61-62.5, Standard No.3, Section III (I)(1)) The Afterburner shall not discharge into the ambient air smoke which exceeds an opacity of 20%.</p> <p>(S.C. Regulation 61-62.5, Standard No.3, Section III(I)(2)) Particulate matter emissions from the Afterburner shall not exceed 0.5 lb/10⁶ Btu total heat input. The total heat input value from waste and virgin fuel used for production shall not exceed the Btu used to affect the combustion of the waste and shall not include any Btu input from auxiliary burners located outside of the primary combustion chamber such as those found in secondary combustion chambers, tertiary combustion chambers or afterburners unless those auxiliary burners are fired with waste. In the case where waste is fired in the auxiliary burners located outside of the primary combustion chamber, only the Btu value of the fuel for the auxiliary burner which is from waste shall be added to the total heat input value.</p> <p>(S.C. Regulation 61-62.1 Section II(J)(2)) The owner/operator shall continue to operate and maintain combustion zone temperature indicators on the Afterburner. Temperature readings shall be recorded at least every fifteen (15) minutes during source operation. Maintenance shall be made according to manufacturer recommendations. Each source shall be in place and operational whenever processes controlled by it are running, except during periods of malfunction or mechanical failure.</p> <p>(SC Regulation 61-62.5, Standard No.3, Section IX(D)) This facility has been granted an exemption from all of the Operator Training Requirements in SC Regulations 61-62.5, Standard No.3, Section IX(C).</p> <p>A minimum combustion zone temperature has been established to ensure proper operation of the Afterburner. This minimum temperature was derived from stack test data, vendor certification, and/or operational history and visual inspections, which demonstrate the proper operation of the equipment. The facility shall maintain the established minimum combustion zone temperature during source operation and supporting documentation for this monitored parameter. The minimum combustion zone temperature may be updated following submittal to the Director of Engineering Services.</p>

C. LIMITATIONS, MONITORING AND REPORTING CONDITIONS

Condition Number	Conditions
C.8	<p>Emission Unit ID: 03 Equipment ID: All Control Device ID: AFBURSCR (Scrubber)</p> <p>The owner/operator shall monitor the Scrubber pump to ensure that it is on and analyze the pH of the scrubber makeup water once per shift. The pump position and the scrubber makeup water pH shall be recorded each shift during source operation. Operation and maintenance checks shall be made to ensure proper operation of the scrubber. The scrubber shall be in place and operational whenever processes controlled by it are running, except during periods of scrubber malfunction or mechanical failure.</p> <p>A minimum pH for the Scrubber makeup water has been established to ensure proper operation of the pollution control equipment. This minimum pH was derived from stack test data, vendor certification, and/or operational history and visual inspections, which demonstrate the proper operation of the equipment. The facility shall maintain the established minimum pH and supporting documentation for these monitored parameters.</p>

C. LIMITATIONS, MONITORING AND REPORTING CONDITIONS

Condition Number	Conditions
C.9	<p>Emission Unit ID: All Equipment ID: All Control Device ID: AFBURSCR, OXIDESCR</p> <p>(S.C. Regulation 61-62.1, Section II.E; S.C. Regulation 61-62.1, Section II.G) This facility is a potential major source for VOC and hazardous air pollutants (HAP) emissions. The facility has agreed to federally enforceable operating limitations to limit its potential to emit to less than 10 tons per year for any single HAP emission, 25 tons per year for any combination of HAP emissions and 100 tons per year for VOC emissions to avoid PSD, MACT, and Title V.</p> <p>The owner/operator shall maintain records of all volatile organic compounds (VOC) and hazardous air pollutants (HAP). These records shall include the total amount of each material used, the VOC content in percent by weight of each material, the HAP content in percent by weight of each material, and any other records necessary to determine VOC and HAP emissions. VOC and HAP emissions shall be calculated on a monthly basis, and a twelve-month rolling sum shall be calculated for total VOC, individual HAP, and total HAP emissions. Facility-wide emission totals must include emissions from exempt activities. Emissions from malfunctions are required to be quantified and included in the calculations. The twelve-month rolling sum shall be less than 10 tons per year for any single HAP emission, 25 tons per year for any combination of HAP emissions and 100 tons per year for VOC emissions. Reports of the calculated values and the twelve-month rolling sum, calculated for each month in the reporting period, shall be submitted semiannually.</p> <p>An algorithm, including example calculations and emission factors, explaining the method used to determine emission rates shall only be included in the initial report. Subsequent submittals of the algorithm are required within 30 days of the change if the algorithm or basis for emissions is modified or the Department requests additional information.</p>
C.10	<p>Emission Unit ID: 03 Equipment ID: All Control Device ID: AFBURSCR</p> <p>The owner/operator is permitted to vent Ethylene gas to the atmosphere during the production of RHODOFAC LO-11ALA (LO), instead of venting to the afterburner control device. The facility shall keep records of the number of batches of LO produced per month.</p>

C. LIMITATIONS, MONITORING AND REPORTING CONDITIONS

Condition Number	Conditions
C.11	<p>Emission Unit ID: 04 Equipment ID: All Control Device ID: OXIDESCR</p> <p>The owner/operator shall continue to operate and maintain pressure drop indicators on each scrubber module. The pressure drop shall be recorded each shift during source operation. The owner/operator shall also analyze the pH of the scrubbing liquid daily during source operation. Operation and maintenance checks shall be made to ensure proper operation of the scrubber. The scrubber shall be in place and operational whenever processes controlled by it are running, except during periods of scrubber malfunction or mechanical failure.</p> <p>Operational ranges for the monitored parameters have been established to ensure proper operation of the pollution control equipment. These operational ranges for the monitored parameters were derived from stack test data, vendor certification, and/or operational history and visual inspections, which demonstrate the proper operation of the equipment. The facility shall maintain the established ranges and supporting documentation for these monitored parameters.</p>
C.12	<p>Emission Unit ID: All Equipment ID: All Control Device ID: AFBURSCR, OXIDESCR</p> <p>It has been determined that this facility is subject to S.C. Regulation 61-62.68, Chemical Accident Prevention Provisions, due to in-process storage or use of a regulated substance in quantities above the specified threshold and that a Risk Management Plan (RMP) has already been submitted to the EPA; therefore, the following must be completed:</p> <ul style="list-style-type: none">• Submittal of subsequent revisions/corrections/updates of the RMP in accordance with S.C. Regulation 61-62.68.190 and 68.195.• For Program 1 processes, the owner/operator shall submit along with the RMP the certification statement provided in Section 68.12(b)(4). For all other covered processes, the owner/operator shall submit along with the RMP a single certification that, to the best of the signer's knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete. <p>If it is determined by the implementing agency (or other delegated authority) that additional relevant information is needed, this facility will be required to submit the information in a timely manner.</p>

D. NESHAP PERIODIC REPORTING SCHEDULE SUMMARY

NESHAP Part	NESHAP Subpart	Compliance Monitoring Report Submittal Frequency	Reporting Period	Report Due Date
63	ZZZZ (Emergency Generators see note 3 and 4)	N/A	N/A	N/A
63	JJJJJ (6J)	Annual ⁵	January 1 – December 31	March 1

1. This table summarizes only the periodic compliance reporting schedule. Additional reports may be required. See specific NESHAP Subpart for additional reporting requirements and associated schedule.
2. This reporting schedule does not supersede any other reporting requirements including but not limited to 40 CFR Part 60, 40 CFR Part 61, 40 CFR Part 63, and/or Title V. The MACT reporting schedule may be adjusted to coincide with the Title V reporting schedule with prior approval from the Department in accordance with 40 CFR 63.10(a)(5). This request may be made 1 year after the compliance date for the associated MACT standard.
3. Facilities with emergency generators are not required to submit reports. Only facilities with non-emergency engines are required to submit semiannual reports.
4. Facilities with emergency engines shall comply with the operations limits specified in 40 CFR 63.6640(f).
5. Each annual compliance certification report must be prepared by March 1 of the year immediately following the reporting period and kept in a readily-accessible location for inspector review. If a deviation has occurred during the year, each annual compliance report must be submitted by March 15 of the year immediately following the reporting period. If the boiler is only subject to biennial or five-year tune-ups, you may prepare only a biennial or five-year compliance certification report.

E. NESHAP – CONDITIONS

Condition Number	Conditions
E.1	All NESHAP notifications and reports shall be sent to the Manager of the Air Toxics Section, South Carolina Department of Health and Environmental Control - Bureau of Air Quality.
E.2	All NESHAP notifications and the cover letter to periodic reports shall be sent to the United States Environmental Protection Agency (US EPA) at the following address or electronically as required by the specific subpart: US EPA, Region 4 Air, Pesticides and Toxics Management Division 61 Forsyth Street SW Atlanta, GA 30303

E. NESHAP – CONDITIONS

Condition Number	Conditions
E.3	<p>Emergency power generators less than or equal to 150 kilowatt (kW) rated capacity or greater than 150 kW rated capacity designated for emergency use only and operated a total of 500 hours per year or less for testing and maintenance with a method to record the actual hours of use such as an hour meter have been determined to be exempt from construction permitting requirements in accordance with South Carolina Regulation 61-62.1. These sources shall still comply with the requirements of all applicable regulations including but not limited to the following:</p> <p>New Source Performance Standards (NSPS) 40 CFR 60 Subpart A (General Provisions); NSPS 40 CFR 60 Subpart IIII (Stationary Compression Ignition Internal Combustion Engines); NSPS 40 CFR 60 Subpart JJJJ (Stationary Spark Ignition Internal Combustion Engines); National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63 Subpart A (General Provisions); and NESHAP 40 CFR 63 Subpart ZZZZ (Stationary Reciprocating Internal Combustion Engines).</p>
E.4	<p>Boiler No.3 is subject to the provisions of S.C. Regulation 61-62.63 and 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants, Subparts A (General Provisions) and Subpart JJJJJJ (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources). Existing affected sources shall be in compliance with the requirements of these Subparts by the compliance date, unless otherwise noted. Any new affected sources shall comply with the requirements of these Subparts upon initial start-up unless otherwise noted.</p>

F. PERMIT FLEXIBILITY

Condition Number	Conditions
F.1	<p>The facility may undertake minor alterations without a construction permit, or without revising or reopening the operating permit unless otherwise specified by any State or Federal requirement. These minor alterations must meet the criteria and procedures as prescribed in this condition. This flexibility only covers exempt sources and existing permitted sources. The owner or operator may be subject to possible enforcement if the activity is found to be inconsistent with the permit flexibility conditions.</p> <p>(I) Permit Flexibility Criteria for Existing and Exempt Sources</p> <ol style="list-style-type: none"> 1. The activity will not result in emissions that will exceed any limit in this permit. 2. The activity does not trigger a new regulation or regulatory requirement. See exceptions under (I)7 of this section. 3. The activity does not result in a change in a permit term, condition, or limit. 4. The activity does not result in a new permit term, condition, or limit. 5. The activity does not result in emissions that would potentially subject the facility to the Title V operating permit program. 6. The activity does not trigger S.C. Regulation 61-62.5, Standards No. 7 and No. 7.1 or synthetic

F. PERMIT FLEXIBILITY

Condition Number	Conditions
	<p>minor permitting requirements.</p> <ol style="list-style-type: none"> 7. The activity conducted on the existing permitted source does not meet the definition of new source, modification or reconstruction under 40 CFR Part 60, 61 or 63. This criteria does not apply to new/existing exempt sources under S.C. Regulation 61-62.1 II.B.2 or the BAQ published exempt list. Although exempt from construction permitting, sources subject to federal air rules must meet all applicable requirements. Generators shall comply with the requirements of all applicable regulations including but not limited to New Source Performance Standards (NSPS) 40 CFR 60 Subparts A (General Provisions); IIII (Stationary Compression Ignition Internal Combustion Engines); and JJJJ (Stationary Spark Ignition Internal Combustion Engines); and 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAP), Subparts A (General Provisions) and ZZZZ (NESHAP for Stationary Reciprocating Internal Combustion Engines). Existing affected sources shall comply with the applicable provisions by the compliance date specified in the applicable Subpart. Any new affected sources shall comply with the requirements of these Subparts upon initial start-up unless otherwise noted. 8. Compliance with S.C. Regulations 61-62.5 Standards No. 2 (Ambient Air Quality Standards), No. 7 (PSD) and No. 8 (Toxic Air Pollutants) is not affected. 9. Any activity exempted in S.C. Regulation 61-62.1 Section II.B.2 or the BAQ published exempt source list. Case by case exemptions described in Section II will require prior written approval. <p>(II) Ambient Air Standards Demonstration Flexibility</p> <p>Changes that impact an ambient air standards demonstration (such as air dispersion modeling), but are otherwise allowed under the permit flexibility condition, shall be allowed provided:</p> <ol style="list-style-type: none"> 1. Updated air dispersion modeling or other information demonstration is conducted prior to the source operating under the new operating scenario. A copy of these results for the new operating scenario are kept on site and available for inspection. The air dispersion model used must be BAQ approved. 2. The facility must submit a written request to modify the demonstration within 3 business days of operating under the new operating scenario. The demonstration shall include a description of the scenario, emission rates, modeling results, modeling files and a completed modeling information form and any other pertinent information relevant to the demonstration. This request shall be submitted to the Director of Engineering Services. <p>(III) Record Keeping</p> <p>As part of this permit flexibility procedure, the facility shall keep an on-site implementation log (OSIL) (written or electronic), to document all changes made under the procedure. The OSIL will be kept with the facility's air permit and made available for inspection. The OSIL shall provide detailed information supporting the changes made under this procedure. At a minimum all of the following items shall be included in the OSIL:</p> <ol style="list-style-type: none"> 1. A brief description of the activity and how it meets the criteria listed in this condition. Include impacted equipment identification numbers, operating permit identification unit, and stack

F. PERMIT FLEXIBILITY

Condition Number	Conditions
	<p>identification.</p> <ol style="list-style-type: none">2. The date the activity occurred.3. A demonstration that the activity did not trigger any new regulations, standards or requirements.4. A demonstration that the activity did not result in a change in any existing permit term, condition or limit; and did not result in a need for a new permit term, condition or limit.5. Emissions calculations for all regulated air pollutants resulting from the activity and demonstration that when added to the existing emissions all permit limits will be met. This should include the increase and the facility-wide emissions totals from the activity.6. A list of exempt sources will be kept with the OSIL and only the information required by the regulation for the exemption shall be included with the OSIL. <p>(IV) Reporting</p> <p>Reports of activities conducted under this permit flexibility condition shall be submitted every 5 years, unless no changes were made, from the permit effective date and every 5 years thereafter, to the Director of the Engineering Services. See ambient air standards demonstration flexibility section of this condition for modeling or other information demonstration reporting requirements.</p>
F.2	<p>In addition to the record keeping and reporting requirements in the flexibility condition (F.1), at the end of every calendar year but no later than January 31, the permit holder shall review their facility's equipment, processes, and materials to determine if: a) there have been any changes allowed by the flexibility condition that have not been documented; b) all required documentation is present for previous recorded changes; and c) if there have been any changes made that are not allowed by the flexibility condition.</p> <p>Any changes allowed by the flexibility condition that have not previously been documented should be added to the facility's onsite implementation log (OSIL), along with supporting documentation explaining what has changed. Any OSIL entries without all required documentation should be updated. Any changes made that are not allowed under the flexibility condition should be reviewed and appropriate corrective action initiated.</p> <p>The permit holder shall document that this review of the facility's equipment, processes, and materials has been conducted and that the OSIL has been updated or amended, or other appropriate corrective action initiated. If no changes were found, the review shall note such.</p>

G. AMBIENT AIR STANDARDS REQUIREMENTS

Condition Number	Conditions
G.1	<p>Air dispersion modeling (or other method) has demonstrated that this facility's operation will not interfere with the attainment and maintenance of any state or federal ambient air standard. Any changes in the parameters used in this demonstration may require a review by the facility to determine continuing compliance with these standards. These potential changes include any decrease in stack height, decrease in stack velocity, increase in stack diameter, decrease in stack exit temperature, increase in building height or building additions, increase in emission rates, decrease in distance between stack and property line, changes in vertical stack orientation, and installation of a rain cap that impedes vertical flow. Parameters that are not required in the determination will not invalidate the demonstration if they are modified. The emission rates used in the determination are listed in Attachment - Emission Rates for Ambient Air Standards of this permit. Higher emission rates may be administratively incorporated into Attachment - Emission Rates for Ambient Air Standards of this permit provided a demonstration using these higher emission rates shows the attainment and maintenance of any state or federal ambient air quality standard or with any other applicable requirement. Variations from the input parameters in the demonstration shall not constitute a violation unless the maximum allowable ambient concentrations identified in the standard are exceeded.</p> <p>The owner/operator shall maintain this facility at or below the emission rates as listed in Attachment - Emission Rates for Ambient Air Standards, not to exceed the pollutant limitations of this permit. Should the facility wish to increase the emission rates listed in Attachment - Emission Rates for Ambient Air Standards, not to exceed the pollutant limitations in the body of this permit, it may do so by the administrative process specified above. This is a State Only enforceable requirement.</p>

H. PERIODIC REPORTING SCHEDULE

Compliance Monitoring Report Submittal Frequency	Reporting Period (Begins on the effective date of the permit)	Report Due Date
Quarterly	January-March April-June July-September October-December	April 30 July 30 October 30 January 30
Semiannual	January-June April-September July-December October-March	July 30 October 30 January 30 April 30
Annual	January-December April-March July-June October-September	January 30 April 30 July 30 October 30

H. PERIODIC REPORTING SCHEDULE

Compliance Monitoring Report Submittal Frequency	Reporting Period (Begins on the effective date of the permit)	Report Due Date
Note: This reporting schedule does not supersede any federal reporting requirements including but not limited to 40 CFR Part 60, 40 CFR Part 61, and 40 CFR Part 63. All federal reports must meet the reporting time frames specified in the federal standard unless the Department or EPA approves a change.		

I. REPORTING CONDITIONS

Condition Number	Conditions
I.1	Reporting required in this permit, shall be submitted in a timely manner as directed in the Periodic Reporting Schedule of this permit.
I.2	<p>All reports and notifications required under this permit shall be submitted to the person indicated in the specific condition at the following address:</p> <p style="text-align: center;">2600 Bull Street Columbia, SC 29201</p> <p>The contact information for the local Environmental Affairs Regional office can be found at: http://www.scdhec.gov</p>
I.3	Unless elsewhere specified within this permit, all reports required under this permit shall be submitted to the Manager of the Technical Management Section, Bureau of Air Quality.
I.4	<p>(S.C. Regulation 61-62.1, Section II.J) For sources not required to have continuous emissions monitors, any malfunction of air pollution control equipment or system, process upset or other equipment failure which results in discharges of air contaminants lasting for one hour or more and which are greater than those discharges described for normal operation in the permit application shall be reported to the Department's local Environmental Affairs Regional office within 24 hours after the beginning of the occurrence.</p> <p>The owner/operator shall also submit a written report within 30 days of the occurrence. This report shall be submitted to the Manager of the Technical Management Section, Bureau of Air Quality and shall include, at a minimum, the following:</p> <ol style="list-style-type: none"> 1. The identity of the stack and/or emission point where the excess emissions occurred; 2. The magnitude of excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the excess emissions; 3. The time and duration of excess emissions; 4. The identity of the equipment causing the excess emissions; 5. The nature and cause of such excess emissions; 6. The steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunction; 7. The steps taken to limit the excess emissions; and, 8. Documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated, to the maximum extent practicable, in a manner consistent with good practice for minimizing emissions.

J. GENERAL CONDITIONS

Condition Number	Conditions
J.1	The owner or operator shall comply with S.C. Regulation 61-62.2 "Prohibition of Open Burning."
J.2	The owner or operator shall comply with S.C. Regulation 61-62.3 "Air Pollution Episodes."
J.3	The owner or operator shall comply with S.C. Regulation 61-62.4 "Hazardous Air Pollution Conditions."
J.4	This permit only covers emission units and control equipment while physically present at the indicated facility. Unless the permit specifically provides for the equipment relocation, this permit is void for an item of equipment on the day it is removed from the permitted facility, notwithstanding the expiration date specified on the permit.
J.5	The permittee shall pay permit fees to the Department in accordance with the requirements of S.C. Regulation 61-30, Environmental Protection Fees.
J.6	<p>In the event of an emergency, as defined in S.C. Regulation 61-62.1, Section II.L, the owner or operator may document an emergency situation through properly signed, contemporaneous operating logs, and other relevant evidence that verify:</p> <ol style="list-style-type: none"> 1. An emergency occurred, and the owner or operator can identify the cause(s) of the emergency; 2. The permitted source was at the time the emergency occurred being properly operated; 3. During the period of the emergency, the owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and 4. The owner or operator gave a verbal notification of the emergency to the Department within 24 hours of the time when emission limitations were exceeded, followed by a written report within 30 days. The written report shall include, at a minimum, the information required by S.C. Regulation 61-62.1, Section II.J.1.c.i through viii. The written report shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. <p>This provision is in addition to any emergency or upset provision contained in any applicable requirement.</p>
J.7	<p>(S.C. Regulation 61-62.1, Section II.O) Upon presentation of credentials and other documents as may be required by law, the owner or operator shall allow the Department or an authorized representative to perform the following:</p> <ol style="list-style-type: none"> 1. Enter the facility where emissions-related activity is conducted, or where records must be kept under the conditions of the permit. 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. 3. Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit. 4. As authorized by the Federal Clean Air Act and/or the S.C. Pollution Control Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

K. PERMIT RENEWAL, MODIFICATION, EXPIRATION AND TRANSFER OF OWNERSHIP

Condition Number	Conditions
K.1	This permit may be reopened by the Department for cause or to include any new standard or regulation which becomes applicable to a source during the life of the permit.
K.2	This permit may be modified by the Department for cause, to include any applicable requirement or to add or alter a permit's expiration date.
K.3	(S.C. Regulation 61-62.1, Section II.M) Within 30 days of the transfer of ownership/operation of a facility, the current permit holder and prospective new owner or operator shall submit to the Director of Engineering Services a written request for transfer of the source operating or construction permits. The written request for transfer of the source operating or construction permit shall include any changes pertaining to the facility name and mailing address; the name, mailing address, and telephone number of the owner or operator for the facility; and any proposed changes to the permitted activities of the source. Transfer of the operating or construction permits will be effective upon written approval by the Department.

ATTACHMENT - Emission Rates for Ambient Air Standards

Solvay USA, Inc.

CM-2060-0135

Page 1 of 2

The emission rates listed herein are not considered enforceable limitations but are used to evaluate ambient air quality impact. Until the Department makes a determination that a facility is causing or contributing to an exceedance of a state or federal ambient air quality standard, increases to these emission rates are not in themselves considered violations of these ambient air quality standards (see Ambient Air Standards Requirements).

AMBIENT AIR QUALITY STANDARDS - STANDARD NO.2						
Emission Point ID	Emission Rates (lb/hr)					
	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	Lead
BS1	--	--	0.0005	0.760	--	--
BS2	--	--	0.0005	0.760	--	--
BS3	--	--	2.55	1.200	--	--
AFBURSCR	0.0495	0.0495	0.0032	0.3000	0.0172	1.89E-05
BS1	0.0580	0.0580	--	--	0.3276	3.80E-06
BS2	0.0580	0.0580	--	--	0.3276	3.80E-06
BS3	0.1200	0.1200	--	--	0.6850	7.53E-05

TOXIC AIR POLLUTANTS - STANDARD NO.8				
Emission Point ID	Emission Rates (lb/hr)			
	1,4-Dioxane 123-91-1	Ethylene Oxide 75-21-8	Phosphine 7803-51-2	Phosphoric Acid 7664-38-2
AFBURSCR	1.320	--	0.3780	2.69
Equipment Leaks 1-31	--	1.00E-03	--	--
OXIDESCR	3.218	4.32E-01	--	--
SWCAUSCR	--	--	--	--
SWVENSCR	0.0272	--	0.0048	--
WWTANK	10.400	1.42E-02	--	--

ATTACHMENT - Emission Rates for Ambient Air Standards

Solvay USA, Inc.

CM-2060-0135

Page 2 of 2

TOXIC AIR POLLUTANTS – STANDARD NO.8					
Emission Point ID	Emission Rates (lb/hr)				
	m-Cresol 108-39-4	Ethanolamine 141-43-5	Ethylene Glycol 107-21-1	Phenol 108-95-2	1,2-Propylene Oxide 75-56-9
AFBURSCR	--	8.15E-05	0.0058	--	--
OXIDESCR	0.0076	--	--	0.0110	0.137
SWCAUSCR	--	7.93E-05	--	--	